

MARCH

1985

# Field Naturalists Club of Ballarat

## EXCURSION - NEWS SHEET

Meeting March 1: Annual General Meeting - Members Night

Meeting April 12 : Syllabus Item to be announced.

Excursion March 3 : As specified on agenda/excursion sheet.



President: Miss H Burgess 312210  
Secretary: Miss J Binns 323670  
Treasurer: Mrs F Williamson 327631  
Editors: Mr G Binns 323670  
Mr L Fink 052 861319

Meetings, as specified, are held in the Art Building of the School of Mines and Industries, Lydiard Street South, Ballarat, commencing 7:30pm.  
EXCURSIONS, AS SPECIFIED, COMMENCE FROM CROCKERS, Cnr. STURT and ARMSTRONG STREETS, BALLARAT, AT 9.30 am FOR FULL DAY OUTINGS, OR AT 1.30 pm FOR HALF DAY.

## Fell's Gully Excursion Feb 3rd.

Eight members left Crocker's Corner to go to Fell's Gully, Margaret Rotheram having gone on ahead.

The exercise was to see, at first hand, the damage caused by the recent fires.

The whole area at Fell's Gully is burnt- there were no birds and a solitary rabbit made small puffs of dust and ashes as it raced away.

Further around, toward the highway, the area was not burnt and a number of birds were seen, 14 different species being listed. The more interesting were- Nankeen Kestrel, Bronzewing Pidgeon, Dusky Wood Swallows, Red Browed Finches and Red Rumped Parrots. A large Hare and a Wallaby, probably *Macropus rufogrisis*, were also observed.

Cicadas were the main musicians both in the burnt and unburnt areas.

We then went on to survey Clunes Swamps, fire had burnt through the whole area surrounding the swamps.

Some water was still present in Middle Swamp but Merrin Merrin was quite dry. There were two live sheep and a dead carcass in the swamp area, and a large fox was seen to slink away from the latter.

We counted another 17 birds here. Those of interest were Stubble Quail, Rainbow Bird, Egret and Yellow Spoonbills.

Some Lorikeets were seen but not identified.

The area north of Middle Swamp where the Brolgas were seen on a previous outing is completely burnt.

After tea at Clunes Park, a cool and pleasant area. we went on to Coghills Creek in search of Crakes.

Here there was a wealth of Water Birds and Waders but the Crakes weren't to be seen. Some of the birds noted were Stilts, Black Duck, Dusky Moorhen and Reed Warblers. Fairy Martins were plentiful with many bottle nests under the Bridge.

Although the scene was depressing at the start we had a most enjoyable afternoon.

L.A.F.

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### Errata

Typographic Error : in the following article  
read EPICORMIC for EpicerNic growth.



## EPICORNIC GROWTH in EUCALYPTS

The frequent fires in the forests during recent years have resulted in the Epicornic growth of characteristic leaf clusters on branchlets which grow on the scorched tree trunks.

This survival growth phenomena of the Eucalyptus genus makes this group of trees one of the most fire resistant in the world. The following notes on this interesting topic have been provided by the School of Forestry, Creswick some years ago.

Apart from bark characteristics which are probably the most important mechanism by which trees withstand heat effects, the main features which ensure survival of the original tree are the proventitious dormant bud strands and lignotuberous growths at or below ground level.

Epicornic or dormant bud strands are shafts of bud producing tissue passing outwards from the position of a leaf axil. The termini of the shafts are at the wood surface or in the live bark.

On the trunk and branches of a eucalypt there is at least one of these shafts for every leaf that developes as the tree grew, making a total of at least 7,000 on the trunk and main branches of a normal tree. They are thus a major factor in the persistance of eucalypts in the face of fire.

These bud strands can withstand progressive killing of the bark and phloem until the cambium layer is reached. They also show seasonal changes in activity.

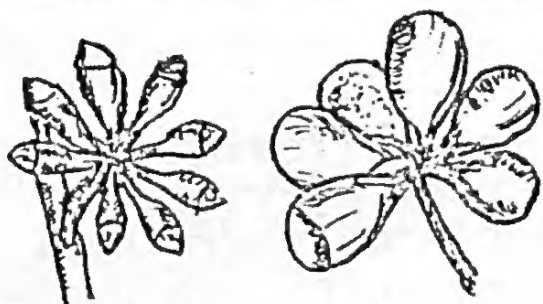
Developement during winter months is slow and restricted to a few strands, resulting in a decrease in activity during autumn in growth on trees burnt by wildfires in summer. On some species it has been noted that there is little sign of strong activity until the following September.

In the long term most of these epicornic branches are shed as the upper crown of the tree regains its dominance, but in the course of being shed they usually cause the formation of gum veins.

Thus trees affected in this way are reduced to poor quality for milling purposes.

Cont'd p. 6.

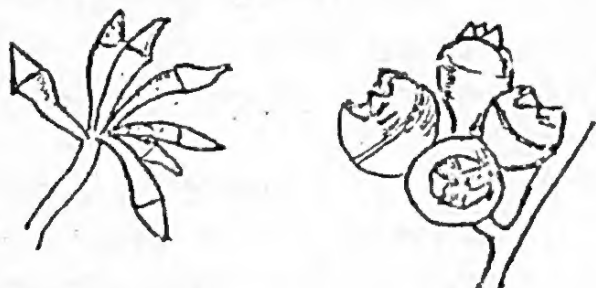
# EUCALYPTS OF THE BALLARAT DISTRICT



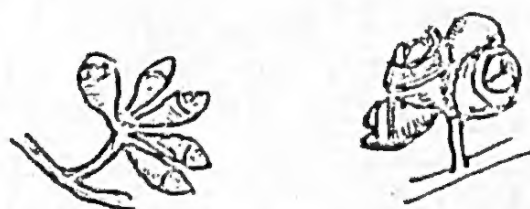
E obliqua



E boxteri



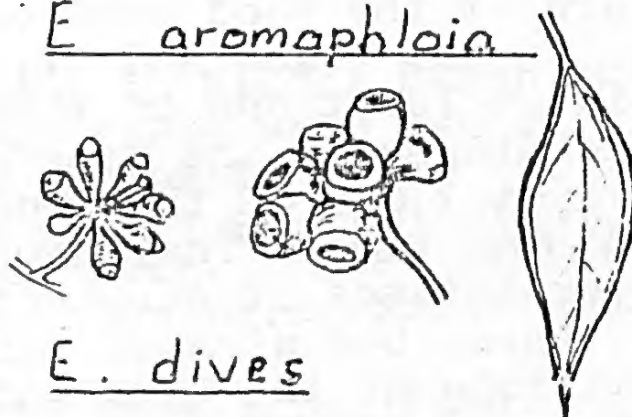
E macrorrhyncha



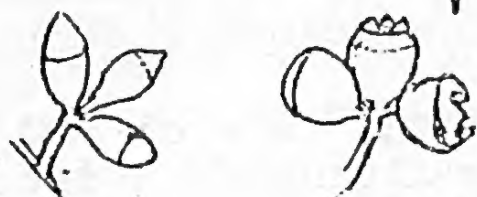
E aromaphloia



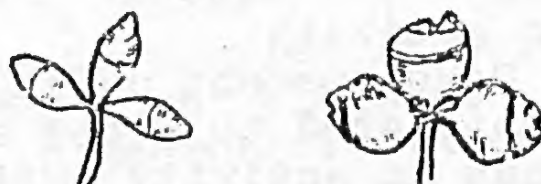
E radiata



E. dives



E rubida



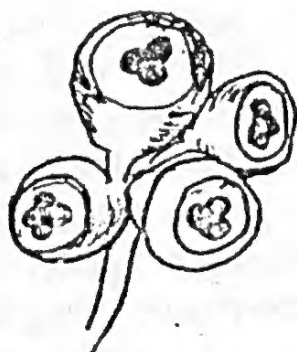
E viminalis



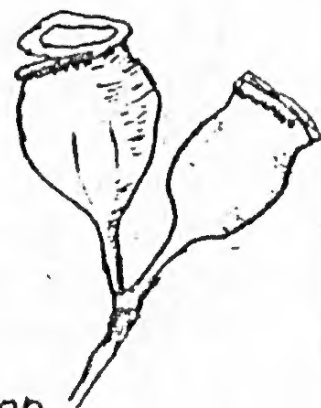
E camaldulensis



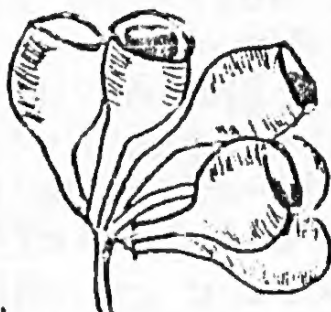
E ovata



E. pauciflora



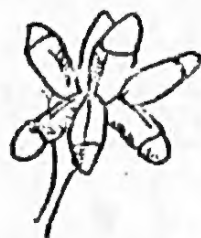
E. leucoxylon



E. sideroxylon



E. polyanthemos



E. goniocalyx

- E. obliqua .. messmate
- " baxteri .. brown stringybark
- " macrorhyncha .. red stringy-bark
- " aromaphloia .. scent-bark
- " radiata .. narrow-leaved peppermint
- " dives .. broad-leaved peppermint

- E. rubida .. candlebark gum
- " viminalis .. manna gum
- " camaldulensis .. river red gum
- " ovata .. swamp gum
- " pauciflora .. snow gum
- " leucoxylon .. white ironbark
- " sideroxylon .. red ironbark
- " polyanthemos .. red box
- " goniocalyx .. long leaved box

S.B.



Lignotubers commence as swellings in the axils of the cotyledons or of the first few pairs of leaves of seedlings. Most eucalypt species develop lignotubers. As the seedling ages the swellings in the individual leaf axils fuse and eventually form a bulbous mass. They tend to fold the stem and envelop the upper part of the root. With increasing age and size they may bury themselves until the greater part is underground. These contain food reserves and numerous regions which correspond to the dormant bud strands on the stem.

If the main stem of the tree is destroyed by fire numerous shoots arise from the lignotuber.

Bark is an excellent insulating material and the most important protective mechanism of the tree.

Insulating qualities depend on structure, composition, density, moisture content and thickness.

A considerable thickness of bark is obviously lost in eucalypts in all but the mildest fires.

In observing and monitoring regeneration of the burnt areas in our district, members may consider recording the growth patterns of the epicornic growth on the various species of eucalypts for comparison. If buds and/or fruit can be found, the identification key (prepared by the late Stella Bedggood and reprinted in this issue) may be most useful

G.W.B.

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### Dates to Remember

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April 19 to 21 W.V.F.N.C.A. campout at Princetown  
Details in last news sheet, or from  
Secretary.

Aug 30 to Sep 1 W.V.F.N.C.A. Bendigo Whipstick.

Oct 13 to 15 W.V.F.N.C.A. Colac Annual Meeting.

Please note that as April 5th is Good Friday  
our meeting night will be April 12th.

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## SPIDERS

Our guest and speaker at the February meeting was miss Wendy Clark, her subject Spiders.

Wendy first joined the F.N.C.V. junior club at twelve years of age; she has been Sec. and Pres. of the juniors and is the current president of the F.N.C.V.. Wendy admitted she was scared of spiders when she was younger.

Spiders belong to the class ARACHNIDA.

Arachnids are Terrestrial Arthropods which have the body with its external skeleton is divided into two main parts; 1 A CEPHALOTHORAX, bearing six pairs of appendages, four of which are walking legs and 2 an ABDOMEN which has no locomotory appendages. They have no chewing jaws. In front of the mouth spiders have a pair of CHELICEROS, appendages which may take the form of pincers or sharp fanglike claws. Behind the mouth is a pair of PEDIPALPS, leglike appendages that serve as a sensory function.

Spiders have simple eyes totalling up to eight pairs. They have no antenna but an abundance of sensory bristles or hairs with which the body and particularly the appendages are covered.

The ABDOMEN shows no appendages except the SPINNERETS of which there can be three pairs.

The spinnerets are finger like organs which have at their tips a battery of minute spinning tubes, (sometimes a hundred or more on each spinneret), from which the fluid silk issues and then hardens as it comes into contact with the air. The spinning tubes connect with several silk glands which produce different kinds of silk for spinning various parts of the web, making a protective cocoon for the eggs, binding prey Etc.

Some of the tubes produce not silk but a sticky fluid which makes the threads of the web adhesive.

Spiders are by far the largest and most widely distributed order of Arachnids.

Spiders are extremely ancient, they have parallels in the sea, they are web builders, hunters, burrowers or snarers.

All spiders inject venom into their prey. Some are extremely dangerous to man and should not be handled; even if their venom is not toxic it may create an allergy.

Those to be avoided are:- Black House Spiders, Red Backs, Funnel Web, Trapdoor and Wolf Spiders.

Wendy also some excellent slides and was thanked by Nancy Kierath for a very informative evening.

L.A.F.

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## REPORTS

- G. Binns Red Capped Plover (Dotterel) sitting on two eggs at the Wild Dog Creek beach during the last week of Jan. Nest a few Metres from the Great Ocean Road.  
Few beach washed specimens this summer, and only two pair of Hooded Plovers (dotterels) noted.
- L. Fink Stubble Quail in Camp St and Sturt St, presumed escapees.
- F. Williamson Two baby swallows in a nest near the basin outlet of the toilet at Melba Gully; being fed by parents.  
Two Brolgas in Beeac Cressy area.
- G. Mangus Echidna on lawn Pryor St also Boobook Owl.
- Betty Gray Two Koalas at Clarkes Hill near Dean seven seen off Gully Rd, between Meredith and Elaine.
- H. Burgess Reported on filling in of swamps near Balranald, that had resulted in the loss of many Ibis
- H. Hooper Concern about Land subdivision in case the areas weren't considered as possible Parklands.
- F. Harrap Weekend visit to Southern edge of Big Desert, many Wood Swallows at a waterhole. A white Backed Swallow with nest hole.

